

**Notice of Allowability**

Application No.

10/040,727

Examiner

Phuong Phu

Applicant(s)

BITTERLICH ET AL.

Art Unit

2611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/22/06.
2. ☒ The allowed claim(s) is/are 1-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### REASONS FOR ALLOWANCE

1. This Office Action is responsive to the Response filed on 11/22/06.
2. Claims 1-37 are allowed.
3. The following is an examiner's statement of reasons for allowance:

References 6434203, 6353640 and 5905900 are additionally cited because they are pertinent to the claimed invention.

-Regarding to independent claim 1, none of prior art of record teaches or suggests the claimed channel CODEC processor. Subramanian et al (2002/001501), previously cited, teaches the claimed CODEC processor, except he at least fails to teach the CODEC processor comprising an algorithm-specific kernel and a processor core coupled to provide configuration data to the algorithm-specific kernel, the configuration data causing the kernel to perform the at least one step of a channel CODEC algorithm according to one of a plurality of wireless communication standards as specified by the configuration data, as claimed, wherein as remarked in REMARKS of the Response, the processor core, based on paragraphs 0030-0034 of the published application (corresponding to page 6, line 26 to page 8, line 27 of the instant application), is defined as the one which not only controls and configures hardware kernels connected to it, but also carries out processing functions of a data stream received by the algorithm-specific kernel, and which can implement an entire CODEC function. It would not have been obvious for one skilled in the art to implement Subramanian et al in view of other prior art of record for leading such the implementation to the claimed invention.

-Regarding to independent claim 16, none of prior art of record teaches or suggests the claimed CODEC processor. Subramanian et al teaches the claimed CODEC processor, except he

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at least fails to teach the CODEC processor comprising algorithm-specific kernels and a processor core coupled to provide configuration data to the algorithm-specific kernels, the configuration data causing the algorithm-specific kernels to perform the step of a first channel CODEC algorithm and the step of a second channel CODEC algorithm according to one of a plurality of wireless communication standards as specified by the configuration data, wherein as remarked in REMARKS of the Response, the processor core, based on paragraphs 0030-0034 of the published application of the instant application, is defined as the one which not only controls and configures hardware kernels connected to it, but also carries out processing functions of a data stream received by one of the algorithm-specific kernels, and which can implement an entire CODEC function. It would not have been obvious for one skilled in the art to implement Subramanian et al in view of other prior art of record for leading such the implementation to the claimed invention.

-Regarding to independent claim 22, none of prior art of record teaches or suggests the claimed CODEC processor. Subramanian et al teaches the claimed CODEC processor, except he at least fails to teach the CODEC processor comprising a first processor core, a second processor core, and a first algorithm-specific kernel and a second algorithm-specific kernel coupled to the first processor core and the second processor core, respectively, wherein the first algorithm-specific kernel is operable to receive first data from the first processor core and to perform at least one step of a first channel CODEC algorithm on the first data, wherein the second algorithm-specific kernel block is operable to receive second data from the second processor core and to perform at least one step of a second channel CODEC algorithm on the second data, wherein as remarked in REMARKS of the Response, the processor cores, based on paragraphs

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0030-0034 of the published application of the instant application, each is defined as the one which not only controls and configures hardware kernels connected to it, but also carries out processing functions of a data stream received by the CODEC processor, and which can implement an entire CODEC function. It would not have been obvious for one skilled in the art to implement Subramanian et al in view of other prior art of record for leading such the implementation to the claimed invention.

-Regarding to independent claim 29, none of prior art of record teaches or suggests the claimed CODEC processor. Subramanian et al teaches the claimed CODEC processor, except he at least fails to teach the CODEC processor comprising an algorithm-specific kernel and a processor core coupled to provide first configuration data to the algorithm-specific kernel, the configuration data causing the kernel to perform a step of a channel decoding algorithm according to one of a plurality of wireless communication standards as specified by the first configuration data, wherein as remarked in REMARKS of the Response, the processor core, based on paragraphs 0030-0034 of the published application of the instant application, is defined as the one which not only controls and configures hardware kernels connected to it, but also carries out processing functions of a data stream received by the CODEC processor, and which can implement an entire CODEC function. It would not have been obvious for one skilled in the art to implement Subramanian et al in view of other prior art of record for leading such the implementation to the claimed invention.

-Regarding to independent claim 33, none of prior art of record teaches or suggests the claimed CODEC processor. Subramanian et al teaches the claimed CODEC processor, except he at least fails to teach the CODEC processor comprising algorithm-specific kernels and a

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processor core coupled to provide first configuration data to the algorithm-specific kernels, the configuration data causing the algorithm-specific kernels to perform a step of a first channel decoding algorithm and a step of a second channel decoding algorithm according to one of a plurality of wireless communication standards as specified by the first configuration data, wherein as remarked in REMARKS of the Response, the processor core, based on paragraphs 0030-0034 of the published application of the instant application, is defined as the one which not only controls and configures hardware kernels connected to it, but also carries out processing functions of a data stream received by the CODEC processor, and which can implement an entire CODEC function. It would not have been obvious for one skilled in the art to implement Subramanian et al in view of other prior art of record for leading such the implementation to the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Phuong Phu*

Phuong Phu  
1/9/07

**PHUONG PHU  
PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
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